Listing of Claims

1. (Currently Amended) A composition suitable for medical and surgical applications, comprising:

a biologically compatible scaffold material having at least one irregular surface, and

a biologically compatible light-activated adhesive, the light-activated adhesive including a light absorber selected from at least one of red food coloring, blue food coloring and green food coloring, the light-activated adhesive also being coupled to the scaffold to form a composite, such that when the irregular surface of the composite is applied to biological tissue and the composite is activated by light energy to repair the biological tissue, the composite has a tensile strength of at least about 130% of the tensile strength of the adhesive alone.

2. (Original) The composition of claim 1, wherein the time-to-failure of the biological tissue repair is at least about 150% of the time-to-failure of a composite when a smooth surface of the scaffold is applied.

3. (Cancelled)

4. (Cancelled)

5. (Original) The composition of claim 1, wherein the scaffold material comprises one of small intestine submucosa and poly(L-lactic-co-glycolic acid) (PLGA).

6. (Currently Amended) A composition adaptable to repair biological tissue, comprising:

a biologically compatible scaffold material, the scaffold material being selected from at least one of poly(glycolic acid), poly(L-lactic-co-glycolic acid), poly (epsilon-caprolactone), poly(ethylene glycol), poly(ortho ester)s, poly (anhydride)s, small intestine submucosa, polymerized collagen, and polymerized elastin,

a biologically compatible adhesive, and

a light absorber including one of food colorings, pH indicators, water, and hemoglobin~~, and photosensitive pharmaceuticals~~, the light absorber having a concentration of about 200 – 1000 μL / 13 mL of deionized water.

7. (Original) The composition of claim 6, wherein the light absorber includes one of red food coloring, blue food coloring and green food coloring.

8. (Original) The composition of claim 6, wherein the light absorber is selected to provide a solder/interface temperature of 66 ± 3°C.

9. (Cancelled)

10. (Currently Amended) The composition of claim ~~9~~ 6, wherein the light absorber concentration is about 600 µL / 13 mL deionized water.

11. (Withdrawn) The composition of claim 7, wherein the red food coloring includes red #40.

12. (Withdrawn) The composition of claim 7, wherein the blue food coloring includes blue #1.

13. (Original) The composition of claim 6, wherein the green food coloring includes blue #1 and yellow #5.

14–31. (Cancelled)

32. (NEW) The composition of claim 1, wherein the biologically compatible scaffold material has a defined length and includes a plurality of surface irregularities spaced apart along the length of the scaffold material.

33. (NEW) The composition of claim 32, wherein the plurality of surface irregularities are introduced to the scaffold material by at least one of molding, drilling and punching.

34. (NEW) The composition of claim 1, wherein the scaffold material is adapted to deliver a biologically active material to a wound when the composite is applied to the wound.

35. (NEW) The composition of claim 1, further comprising a biologically active material selected from at least one of antibiotics, anesthetics, anti-inflammatories, bacteriostatics, bacteriocidals, chemotherapeutic agents, vitamins, anti-neovascular growth factors, pro-neovascular growth factors, tissue cell growth factors, hemostatic agents and thrombogenic agents.

36. (NEW) The composition of claim 1, wherein the scaffold material provides reinforcement for wound repair in combination with the light-activated adhesive without any sutures, staples, clips or other closure devices.

37. (NEW) The composition of claim 1, wherein the scaffold material is adapted to provide a continuous alignment of opposing portions of biological tissue needing repair.

38. (NEW) The composition of claim 5, wherein the poly(L-lactic-co-glycolic acid) has an 85:15 lactic:glycolic copolymer ratio.

39. (NEW) The composition of 38, wherein the biologically compatible adhesive includes 50% w/v bovine serum albumin.

40. (NEW) The composition of claim 6, wherein the biologically compatible scaffold material comprises poly(L-lactic-co-glycolic acid) having an 85:15 lactic:glycolic copolymer ratio.

41. (NEW) The composition of claim 40, wherein the biologically compatible adhesive includes 50% w/v bovine serum albumin.

42. (NEW) The composition of claim 6, wherein the biologically compatible scaffold material has a defined length and includes a plurality of surface irregularities spaced apart along the length of the scaffold material.

43. (NEW) The composition of claim 42, wherein the plurality of surface irregularities are introduced to the scaffold material by at least one of molding, drilling, and punching.

44. (NEW) The composition of claim 6, wherein the scaffold material is adapted to deliver a biologically active material to a wound when the composite is applied to the wound.

45. (NEW) The composition of claim 6, further comprising a biologically active material selected from at least one of antibiotics, anesthetics, anti-inflammatories, bacteriostatics, bacteriocidals, chemotherapeutic agents, vitamins, anti-neovascular growth factors, pro-neovascular growth factors, tissue cell growth factors, hemostatic agents and thrombogenic agents.

46. (NEW) The composition of claim 6, wherein the scaffold material provides reinforcement for wound repair in combination with the adhesive without any sutures, staples, clips or other closure devices.

47. (NEW) The composition of claim 6, wherein the scaffold material is adapted to provide a continuous alignment of opposing portions of biological tissue needing repair.

48. (NEW) A composition adaptable to repair biological tissue, comprising:

a biologically compatible scaffold material, the scaffold material being selected from at least one of poly(glycolic acid), poly(L-lactic-co-glycolic acid), poly (epsilon-caprolactone), poly(ethylene glycol), poly(ortho ester)s, poly(anhydride)s, small intestine submucosa, polymerized collagen, and polymerized elastin,

a biologically compatible light-activated adhesive, the light-activated adhesive including a light absorber selected from at least one of red food coloring, blue food coloring and green food coloring, the light absorber being selected to provide a solder/interface temperature of 66 + 3°C and having a concentration of about 200 – 1000 μL / 13 mL of deionized water.

49. (NEW) The composition of claim 48, wherein the light absorber concentration is about 600 μL / 13 mL deionized water.

50. (NEW) The composition of claim 48, further comprising a biologically active material selected from at least one of antibiotics, anesthetics, anti-inflammatories, bacteriostatics, bacteriocidals, chemotherapeutic agents, vitamins, anti-neovascular growth

factors, pro-neovascular growth factors, tissue cell growth factors, hemostatic agents and thrombogenic agents.

51. (NEW) The composition of claim 48, wherein the biologically compatible scaffold material comprises poly (L-lactic-co-glycolic acid) having an 85:15 lactic:glycolic copolymer ratio.

52. (NEW) The composition of claim 48, wherein the biologically compatible adhesive includes 50% w/v bovine serum albumin.